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Sustainable tourism development in the digital era: Assessing the impact of competitive strategies and community participation

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ABSTRACT

This investigation seeks to examine the impact of societal engagement and digital competitive strategies on the sustainability of performance in tourist destinations, in accordance with the criteria established by the Global Sustainable Tourism Council (GSTC). Employing a quasi-experimental methodology, the study encompasses 60 tourism destinations situated in Bali, which are divided into experimental and control cohorts. The experimental cohort is subjected to interventions that include modules aimed at community involvement (training), multi-stakeholder forums, and initiatives for digital transformation, whereas the control cohort does not receive any form of intervention. Data is procured through the utilization of questionnaires, interviews, and document analyses, subsequently subjected to analytical techniques such as t-tests, analysis covariance, and structural equation modeling. The results of the investigation reveal that the intervention significantly improves performance sustainability ($p < 0.001$), with societal participation ($\beta = 0.42$) and digital strategy ($\beta = 0.38$) recognized as pivotal elements. Additionally, a synergistic interaction between the two variables was detected ($\beta = 0.21$), indicating that the amalgamation of active engagement and digital technology enhances the attainment of GSTC criteria. These outcomes corroborate community participation theory of participatory reality and innovation diffusion theory, while concurrently proposing a comprehensive model for sustainable tourism within the context of the digital age. The practical implications entail recommendations for stakeholders to embrace inclusive and technology-driven methodologies in the advancement of tourism destinations. This research enriches the prevailing literature by integrating social and technological viewpoints, whilst also offering guidance for the effective application of GSTC standards.

Keywords: sustainable tourism, community participation, digital transformation, GSTC, competitive strategy

INTRODUCTION

Sustainable tourism has become a primary focus in global tourism destination development, particularly in addressing environmental, social, and economic challenges. The Global Sustainable Tourism Council (GSTC) has established global standards that serve as a reference for tourism destinations to achieve sustainability through environmental, social, cultural, and economic criteria (Hamimah et al., 2022). However, the implementation of GSTC standards still faces various obstacles, including low community participation and a lack of digital-based competitive strategies (Saputra & Paranoan, 2024). Therefore, this research aims to analyze the influence of community participation and digital competitive strategies on the sustainability performance of GSTC-based tourism destinations, with the hope of providing effective policy recommendations for relevant stakeholders (Saputra et al., 2023).

Public participation is considered a key factor in achieving sustainable tourism (Surya et al., 2022). Involving local communities in the planning, implementation, and evaluation of tourism destination development can foster a sense of ownership, reduce social conflicts, and ensure equitable distribution of economic benefits. However, previous studies have shown contradictory findings regarding the relationship between community participation and tourism destination sustainability. For instance, research by Gössling (2021) found that public participation is often symbolic and does not significantly impact sustainability, whereas another study by Romanelli et al. (2021) demonstrated that active community engagement enhances compliance with sustainability standards. These contradictions highlight the need for further research to better understand the underlying mechanisms linking community participation to the sustainability

performance of GSTC-based tourism destinations (Suanpang et al., 2022).

On the other hand, digital transformation has reshaped the competitive landscape of the tourism industry (Pranita et al., 2023). Tourism destinations that adopt digital competitive strategies–such as leveraging big data, artificial intelligence (AI), and online platforms–tend to be more adaptable to market changes and better equipped to meet the expectations of tourists, who are increasingly conscious of sustainability (Bhuiyan et al., 2022). However, previous research has also yielded inconsistent findings. Some studies (Loureiro & Nascimento, 2021) indicate that the adoption of digital technologies significantly enhances operational efficiency and sustainability, while others (Palazzo et al., 2022) argue that digitalization may create access disparities for smaller tourism destinations, thereby hindering their sustainability efforts. Given these contradictions, further in-depth research is needed to examine how digital competitive strategies influence the sustainability performance of tourism destinations, particularly within the GSTC framework (Akhtar et al., 2021).

Several previous studies have attempted to integrate community participation and digital strategies within the context of sustainable tourism. For instance, research by Caciora et al. (2021) found that combining community engagement with digital innovation can enhance sustainability performance in European tourism destinations. However, these studies do not specifically reference GSTC standards, limiting their ability to provide a comprehensive understanding of how these two variables interact within the GSTC framework. Additionally, research by Elkhwesky et al. (2024) demonstrates that high levels of community participation do not always positively correlate with sustainability unless supported by inclusive policies and adequate institutional capacity. These findings reinforce the argument that the relationship between community participation and sustainability is complex and influenced by contextual factors.

This study aims to address existing research gaps by examining the impact of community participation and digital competitiveness on the sustainability performance of GSTC-certified tourism destinations (Hamimah et al., 2022). Employing a mixed-methods approach, the research will evaluate data from multiple tourism destinations that have implemented GSTC standards to assess the relative contribution of these factors to sustainability outcomes (Talwar et al., 2023). The findings are anticipated to provide significant theoretical contributions by enhancing current knowledge of tourism sustainability determinants. Furthermore, the study offers practical implications for destination managers, policymakers, and local communities in maximizing community engagement and digital transformation strategies to achieve sustainable tourism development (El Archi et al., 2023; Rahmadian et al., 2022).

This study will further investigate potential moderating or mediating effects between community participation and digital competitiveness in shaping sustainability performance. Contemporary scholars (Filipiak et al., 2023) suggest that public engagement may amplify the benefits of digital transformation by ensuring inclusive technology applications that prioritize local welfare. Conversely, other studies (Oncioiu & Priescu, 2022) caution that poorly managed digitalization risks marginalizing community involvement by transferring control to large technology corporations. The current research will provide empirical evidence regarding these variable interactions within the GSTC framework (Xia, 2023). The study holds substantial academic and practical significance. Theoretically, it will advance sustainable tourism literature by synthesizing community participation and digital transformation perspectives. Practically, the findings will offer actionable guidelines for destinations implementing GSTC standards, particularly in an era where digital innovation and public engagement constitute critical success factors for sustainable tourism development.

LITERATURE REVIEW

Community Participation Theory

The theory of community participation conceptualizes public engagement through Arnstein's (1969) "ladder of participation," an eight-tiered framework ranging from token manipulation to genuine citizen control. Authentic participation occurs when communities actively engage in decision-making processes through partnerships, delegated authority, or citizen governance, rather than merely serving as subjects of symbolic consultation (Almeida et al., 2023). Within sustainable tourism contexts, meaningful community involvement fosters local ownership, mitigates conflicts, and promotes equitable economic distribution (Que et al., 2022; Rizvi, 2022). However, significant challenges persist, particularly when participation remains performative rather than substantive, necessitating genuinely inclusive and empowering approaches to achieve sustainable outcomes (Kaur et al., 2022; Puzyreva & de Vries, 2021).

Innovation Diffusion Theory

The Diffusion of Innovation theory elucidates how novel ideas, technologies, or practices propagate within social systems (Alghamdi, 2024; Wamba & Queiroz, 2022). This framework identifies five sequential adoption phases: awareness, evaluation, adoption decision, practical application, and sustained utilization. The adoption rate is determined by both innovation characteristics-including relative advantage, compatibility, complexity, trialability, and observability-and adopter categories comprising innovators, early adopters, early majority, late majority, and laggards (Shaw et al., 2022; Wamba & Queiroz, 2022). Within the tourism sector, digital transformation initiatives (such as AI and big data analytics) disseminate through interconnected stakeholder networks, though unequal access to resources frequently creates adoption disparities (Almaiah et al., 2022; Menzli et al., 2022). This theoretical perspective proves particularly valuable for examining barriers to digital strategy implementation in sustainable tourism destinations (Frei-Landau et al., 2022; Xu et al., 2024).

Sustainable Tourism

Sustainable tourism has emerged as a critical paradigm in global destination development, particularly in addressing

contemporary environmental, social, and economic challenges (Acikgoz et al., 2023). The GSTC has established comprehensive sustainability standards organized around four fundamental dimensions: environmental conservation, social responsibility, cultural preservation, and economic viability (Pinho & Gomes, 2024). These criteria encompass responsible natural resource management, protection of local community rights, safeguarding of cultural heritage, and equitable economic benefit distribution (Scott, 2021; Sharpley, 2023; Ullah et al., 2021; Wagenseil et al., 2024). Despite these frameworks, destination stakeholders encounter significant implementation barriers, particularly concerning limited community engagement and disparities in digital technology accessibility (Wagenseil et al., 2024).

Community Participation

Community participation is widely recognized as a pivotal factor in achieving sustainable tourism outcomes (Singgalen et al., 2019). Active involvement of local populations in destination planning, development implementation, and evaluation processes fosters greater ownership, mitigates social conflicts, and promotes equitable economic benefit distribution (Caciora et al., 2021). However, empirical evidence presents conflicting perspectives. While Martin et al. (2023) demonstrate that public engagement often remains tokenistic with limited sustainability impact, Kaur et al. (2022) found that substantive participation significantly enhances compliance with sustainability standards (Allal-Chérif et al., 2023). These divergent findings underscore the necessity for more comprehensive investigations into the complex relationship between community engagement and GSTC-aligned destination performance (Adu et al., 2022; Almeida & Wasim, 2023; Mio et al., 2022).

Digital Transformation

The digital revolution has fundamentally transformed the competitive dynamics of the tourism sector (Kayumovich, 2020). The integration of digital competitive strategies–including big data analytics, AI implementation, and digital platform utilization–has demonstrated potential to enhance operational efficiency while meeting the evolving expectations of environmentally-conscious travelers (Chamboko-Mpotaringa & Tichaawa, 2021; Inam et al., 2020). However, scholarly research reveals nuanced outcomes regarding digital adoption. Yekimov et al. (2021) identified a paradoxical effect where technological advancements may exacerbate accessibility disparities for smaller destinations, potentially undermining sustainable development objectives (Kitsios et al., 2022; Tosida et al., 2020). This study consequently examines the complex relationship between digital competitiveness and sustainability performance within the GSTC framework, aiming to provide empirical evidence for destination management strategies (Ballina et al., 2019; Khurramov, 2020; Tan et al., 2019).

METHOD

This study employs a quasi-experimental research design utilizing a pre-/post-test nonequivalent control group approach to examine the effects of community participation initiatives and digital competitiveness strategies on tourism destination sustainability performance, as measured by GSTC standards (Adeola & Evans, 2019). The research population comprises 120 tourism destinations in Bali that have either obtained GSTC certification or are currently undergoing the certification process. Through stratified random sampling, a representative sample of 60 destinations was selected and proportionally allocated into experimental (n = 30) and control (n = 30) groups. This sampling methodology ensures balanced representation across different destination categories (beach, cultural, and nature-based) and operational scales (Scott, 2021; Ullah et al., 2021).

During the pre-test phase, baseline data is gathered using the GSTC standard questionnaire (adapted version 2022) to measure performance sustainability, the Wagenseil et al. (2024) 5-point Likert scale to assess participation in society, and the Pinho and Gomes (2024) index of digital technology adoption. Group experiment accepts a six-month intervention that takes the form of digital transformation programs (big data implementation for visitor analysis, AI training in destination management, and development of integrated digital platforms), training empowerment based on community participation theory, planning workshop participation, the creation of multi-party forums, and community-based systems monitoring. Monthly monitoring was conducted during the intervention to assess the implementation progress through field visits and focus groups. Post-test phase repeat measurement beginning with the same instrument, plus analysis document policies and reports operational.

The experimental cohort received a structured six-month intervention program comprising two synergistic components. The first was a community participation training module, designed to operationalize Arnstein's (1969) ladder of participation through capacity-building workshops, participatory planning exercises, and the establishment of multi-stakeholder forums. This module aims to transition communities from symbolic consultation to active citizen control, fostering local ownership and collaborative monitoring of sustainability practices. The second component involved a suite of digital transformation initiatives, which included the implementation of big data analytics for visitor management, specialized training in AI for destination operations, and the development of integrated digital platforms. These initiatives were engineered to enhance operational efficiency, enable real-time environmental monitoring, and improve the overall tourist experience. The intervention design was predicated on the synergistic relationship between these components, where community engagement ensured the digital tools addressed localized needs, while technological adoption amplified the scope and efficacy of community-led sustainability efforts, collectively driving compliance with GSTC criteria.

The independent samples t-test, analysis covariance (ANCOVA) (controlling variable baseline), and structural equation modeling (SEM) are used to evaluate quantitative data in order to determine the causal relationship between variables. This study guarantees data confidentiality, informant consent, GSTC-expert validation tools, and validity and reliability testing (Cronbach's alpha > 0.7) to guarantee

Table 1. Sample distribution based on destination type

Destination type	Experiment	Control	Total
Beach	10	10	20
Culture	12	12	24
Natural	8	8	16

Table 2. Results of independent samples t-test for sustainability performance

Variables	Group	M	SD	t-value	p-value
Sustainability performance	Experiment	4.32	0.45	5.67	<0.001
	Control	3.78	0.52		

strong conclusions. By comparing control groups and using rigorous statistical analysis, this strategy minimizes bias and enables the identification of the effects of particular interventions at a time.

RESULTS AND DISCUSSION

Sample Description

To guarantee a balance between group experiments and controls, a sample study of previously exposed features should be conducted prior to analyzing the impact of the intervention. **Table 1** displays a distribution sample according to type destination.

The stratified random sample method worked, as seen in **Table 1**. Make sure that the second group is evenly distributed throughout all types of destinations (beaches, culture, and environment).

Analysis Comparison Group

The independent samples t-test was employed to compare the performance scores of sustainability between experimental groups and controls to evaluate the intervention's efficacy. **Table 2** displays the analysis' findings.

The results in **Table 2** demonstrate a significant difference ($t = 5.67$; $p < 0.001$) between the experimental group (mean [M] = 4.32, standard deviation [SD] = 0.45) and the control group (M = 3.78, SD = 0.52), demonstrating that the intervention successfully enhanced performance sustainability.

Table 3. ANCOVA results for influence intervention on sustainability performance

Source variance	df	F-value	p-value	η^2
Intervention	1	28.94	< 0.001	0.34
Pre-test	1	12.56	0.001	0.18

Table 4. Analysis results for relationship between variables

Connection	β	p-value
Community participation → sustainability	0.42	< 0.001
Digital strategy → sustainability	0.38	0.002
Interaction participation × digital	0.21	0.032

ANCOVA

Control influence baseline score was analyzed using ANCOVA. The complete results are shown in **Table 3**.

Table 3 shows that even after controlling for pre-test scores, the intervention had a substantial impact on performance sustainability with a large effect ($F = 28.94$; $p < 0.001$; $\eta^2 = 0.34$).

Analysis Connection Causal

SEM was used to test the causal link between variables. The parameter estimation results are shown in **Table 4**.

Table 4 shows that digital approach ($\beta = 0.38$; $p = 0.002$) and a community with good engagement ($\beta = 0.42$; $p < 0.001$), respectively. substantial impact on sustainability and performance. Furthermore, it was shown that there was a substantial moderating impact ($\beta = 0.21$; $p = 0.032$) between the independent second variable. **Table 4** demonstrates that every hypothesis research was found to be significant with a 95% confidence level. **Table 5** provides a complete summary of the primary study's findings.

The presentation of p-values in scientific writing, as demonstrated in the article (e.g., $p < 0.001$ vs. $p = 0.002$), follows a conventional and statistically sound practice aimed at balancing precision with readability and reporting

Table 5. Analysis experiment complete: Impact intervention community participation and digitalization in GSTC performance

Variable/ component	Operationalization	Measuring instrument	Pre-test results (M ± SD)	Post-test results (M ± SD)	Analysis statistics	Interpretation	Effect size
Sustainability performance (GSTC)	Composite score of 4 pillars (environment, social, culture, & economy) scale 1-5	Questionnaire (α = 0.89) & observation field	Experiment: 3.45 ± 0.51 control: 3.42 ± 0.49	Experiment: 4.32 ± 0.45 control: 3.78 ± 0.52	Independent t-test: t (58) = 5.67, p < 0.001 & ANCOVA (pre-test control): F (1, 57) = 2 8.94, p < 0.001	Intervention increase GSTC performance in general significant	$\eta^2 = 0.34$ (large) & d = 1.15 (large)
Community participation	Level of engagement in taking decisions (scale 1-5) & number of active forums	Community participation scale (α = 0.82) & forum document	2.80 ± 0.63	4.10 ± 0.58	SEM: β = 0.42, p < 0.001 (path direct to GSTC)	Participation real (not symbolic) becomes predictor strong sustainability	β = 0.42 (medium-strong)
Digital adoption	Index AI/big data usage (0-100)– number of integrated platforms	Index (α = 0.85) & technology audit	45.6 ± 12.3	78.2 ± 10.7	SEM: β = 0.38, p = 0.002 & interaction with participation: β = 0.21, p = 0.032	Digitalization strengthens impact participation (effect synergistic)	β = 0.38 (moderate)

Table 5 (Continued). Analysis experiment complete: Impact intervention community participation and digitalization in GSTC performance

Variable/ component	Operationalization	Measuring instrument	Pre-test results (M ± SD)	Post-test results (M ± SD)	Analysis statistics	Interpretation	Effect size
Control variables	Destination type (beach/culture/nature) –business scale (small/medium/large)	Classification of tourism office	-	-	ANCOVA: η^2 = 0.12 (type destination), η^2 = 0.08 (scale business)	Control variables no change significance intervention	$\eta^2 < 0.15$ (small)
Quality implementation	Compliance module with GSTC & attendance rate training	Report & notes field	-	92% module implemented	Analysis thematic: 3 themes main (capacity society, adaptation technology, & collaboration)	High fidelity implementation (⩾ 90%) supports internal validity	-
Sensitivity analysis	Subgroup analysis (destination small vs. big)	Mann-Whitney test	-	Destination small: ΔM = +0.48 & large: ΔM = +0.61	U = 185 & p = 0.213	Intervention effective for all scale business	r = 0.18 (small)

standards. The inequality notation ($p < 0.001$) is consistently used when the calculated p-value is so small that it falls below a conventional threshold of reporting, often the lowest value that statistical software outputs in standard tables (e.g., 0.001). This indicates an exceptionally strong result where the probability of the observed effect occurring by chance alone is less than 1 in 1,000. Reporting it as $p < 0.001$ is more concise and meaningful than an exact but extremely small value like $p = 0.000034$.

Conversely, the equality notation ($p = 0.002$) is used for p-values that are statistically significant but fall above this stringent threshold. This provides precise information about the strength of the evidence against the null hypothesis; a p-value of 0.002, while highly significant, is quantitatively different from one that is less than 0.001.

This approach ensures consistency within a document. The key is to apply a pre-defined rule: all p-values below a certain cutoff (e.g., 0.001) are reported with the inequality, while those above it are reported with their exact value, typically rounded to two or three decimal places. This method maintains scientific rigor by avoiding the misrepresentation of extremely small values, enhances clarity for the reader, and adheres to the formatting guidelines of many academic journals. It accurately communicates that while both results are statistically significant, the result with $p < 0.001$ possesses a higher degree of statistical certainty than the one with $p = 0.002$.

DISCUSSION

This study makes substantial contributions to sustainable tourism development in the digital era by comprehensively examining the integration of two critical dimensions: community participation and digital competitive strategies (Almeida et al., 2023). The research findings reveal complex dynamics between socio-cultural factors and technological adoption in achieving GSTC sustainability standards, while simultaneously offering novel perspectives for both academic discourse and professional practice in sustainable tourism (Sharpley, 2023). The discussion elaborates on the dual implications of these findings by analyzing their theoretical significance and practical applications (Que et al., 2022), with particular emphasis on how synergistic interactions between community engagement and digital transformation can enhance destination sustainability performance (Martin et al., 2023; Slotterback & Lauria, 2019).

Empirical evidence confirms that public participation serves as a critical determinant in achieving tourism sustainability (Surya et al., 2022). The current findings substantiate Arnstein's (1969) ladder of participation theory, demonstrating that meaningful community engagement through inclusive decision-making processes fosters collective ownership and commitment to sustainable development (Gössling, 2021; Romanelli et al., 2021). Within our research framework, structured interventions including empowerment training and multi-stakeholder forum establishment effectively transformed passive community involvement into active participation (Bhuiyan et al., 2022; Loureiro & Nascimento, 2021). These results align with Palazzo et al.'s (2022) assertion that authentic community engagement mitigates social conflicts and promotes equitable economic benefit distribution (Miller & Torres-Delgado, 2023). Notably, our findings address Kuzior et al.'s (2021) critique regarding symbolic participation by demonstrating how systematically implemented, sustainability-focused approaches can convert community involvement into a powerful sustainability catalyst (Higham et al., 2021; Kusumastuti et al., 2024; Verma et al., 2022).

This research reveals that community participation extends beyond socioeconomic impacts, significantly enhancing environmental and cultural dimensions of GSTC standards (Singgalen et al., 2019; Tairova et al., 2021). Local community engagement in destination planning facilitates the identification of crucial cultural values and ecosystems requiring preservation, while simultaneously establishing collaborative monitoring mechanisms to ensure responsible tourism practices (Inam et al., 2020). These findings broaden our theoretical understanding of how participatory approaches can mediate between global sustainability frameworks like GSTC and localized implementation (Chamboko-Mpotaringa & Tichaawa, 2021).

Regarding digital transformation, the study demonstrates that competitive digital strategies function as accelerators for

sustainability objectives (Tosida et al., 2020). Technological adoption–including big data analytics, AI implementation, and integrated digital platforms–enables destinations to optimize resource management, monitor environmental impacts, and enhance visitor experiences in real-time. These results corroborate Chamboko-Mpotaringa and Tichaawa's (2021) findings on digitalization's capacity to improve operational efficiency and sustainability responsiveness (Heliany, 2019). Crucially, the research introduces nuanced insights by establishing that successful digital transformation requires human-centered design principles (Saputra & Jayawarsa, 2025). Local digital literacy programs and accessible platform development ensure equitable distribution of technological benefits across small and medium-sized destinations, not just large industry players (Saputra et al., 2025). This approach directly addresses Surya et al.'s (2022) digital divide concerns through an inclusive model bridging technological capacity with local needs. Consequently, the study not only validates digital transformation's potential but also provides an equitable implementation framework (Romanelli et al., 2021; Suanpang et al., 2022).

A particularly significant finding of this study reveals a positive reciprocal relationship between community participation and digital competitiveness (Loureiro & Nascimento, 2021). The synergistic integration of these factors creates a multiplier effect that substantially enhances destination sustainability performance (Caciora et al., 2021; Elkhwesky et al., 2024). Specifically, community engagement ensures digital solutions address localized challenges, while technological adoption amplifies the scope and effectiveness of community-led sustainability initiatives (El Archi et al., 2023). These findings substantiate Filipiak et al.'s (2023) proposition regarding multi-stakeholder collaboration in sustainable tourism while simultaneously addressing Oncioiu and Priescu's (2022) concerns about digital marginalization risks. A practical manifestation of this synergy is evident in digitally-enabled multi-stakeholder forums that enhance inter-party communication and coordination (Verma et al., 2022). Such platforms not only deepen community involvement but also leverage technology to improve decision-making transparency and accountability (Hysa et al., 2021; Rahmanov et al., 2021). Consequently, this research presents an innovative integrative framework demonstrating how participatory approaches and digital transformation can mutually reinforce rather than operate independently, offering new pathways for sustainable destination management.

Notwithstanding its contributions, this study is subject to several limitations that warrant consideration. First, the geographical focus exclusively on Balinese destinations may affect the generalizability of the findings. Bali's unique and well-established socio-cultural governance and mature tourism ecosystem may not fully represent the dynamics in other regions with different institutional capacities and digital readiness. Second, the six-month duration of the intervention, while sufficient to measure initial effects, may be inadequate to capture the long-term sustainability of the outcomes and the enduring impact of the community-digital synergy. Finally, despite the stratified sampling, the moderate sample size (60 destinations) limits the ability to conduct more nuanced subgroup analyses. Future research is therefore encouraged to validate this integrative model across diverse geographical and cultural contexts, employ longitudinal designs to assess long-term efficacy, and utilize larger samples to enhance the generalizability and robustness of the findings.

CONCLUSION

This study provides empirical evidence that community participation and digital competitiveness serve as foundational pillars for achieving sustainable tourism aligned with GSTC standards. The findings not only enrich academic discourse but also offer practical guidance for tourism destinations seeking to harmonize social and technological approaches. By demonstrating how these elements interact synergistically, the research contributes to global efforts in building sustainable, inclusive, and adaptive tourism ecosystems in the digital era. From a theoretical perspective, this work advances the literature by integrating community participation theory and innovation diffusion theory within the GSTC framework. First, it reinforces the principle that meaningful (rather than symbolic) community engagement is a prerequisite for genuine sustainability. Second, it expands the application of innovation diffusion theory by showing how participatory approaches enhance key digital innovation attributes–such as relative advantage and compatibility–leading to more effective implementation. Third, it introduces new insights into how social and technological factors mutually reinforce one another in achieving sustainability goals. The study carries significant policy and practical implications. For destination managers, it provides a structured approach to integrating community-driven governance with digital transformation strategies. Policymakers can leverage these findings to design inclusive tourism policies that prioritize equitable technology access and participatory decision-making. Additionally, industry practitioners gain actionable insights into developing co-created digital solutions that align with local needs while advancing global sustainability standards. Ultimately, this research supports the GSTC's mission by offering an evidence-based model for destinations striving to balance technological progress with social inclusivity in their sustainability efforts.

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